8.1.5.d *SANDER (U 15)*

Site Description and Existing Conditions

SANDER (U 15) —named for the planned, but never developed, San Diego Energy Recovery facility—is a 32.13 acre parcel located south of SR 52 and accessed via a private drive off Clairemont Mesa Boulevard between Kearny Mesa Road and Mercury Street. The 35.13-acre site was acquired from the Navy and is owned and managed by the City of San Diego Environmental Services Department. The site is outside the MHPA and is zoned for Industrial Parks. Adjacent land uses include military, transportation, commercial and industrial parks.

Thirty-three vernal pools, covering 1,790 m^2 (0.442 acres), were mapped in 2003 (City of San Diego, 2004). Non-native grasslands and disturbed southern mixed chaparral occur in Redding gravelly loams. *P. abramsii* and *B. sandiegonensis* occur in these basins (City of San Diego, 2004; RECON, 2003; RECON, 2001).

The site has been impacted by trash dumping, non-native species, off-road vehicle use, illegal clearing, trespass and itinerant encampments.

Threats

Development

The City of San Diego proposed the development of the San Diego Energy Recovery at the SANDER site. This proposal has been abandoned; however, a U.S. Fish and Wildlife Service Biological Opinion (1-1-83-F-29R) was prepared and the required mitigation was completed by the City. This mitigation included preservation of the "Brown Parcel," now referred to as Lopez Ridge, and the preparation of the *Vernal Pool Management Plan* by the City in 1996. The *Vernal Pool Management Plan* (City of San Diego, 1996) stated that the "site is not designated for preservation" and new development projects may be proposed.

Invasive Species

The site is characterized by non-native forbs which may be a factor in the low cover of sensitive species.

Edge Effects/Trespass

Trespass was identified as a threat to SANDER in the *Vernal Pool Management Plan* (City of San Diego, 1996). The site is partially fenced and is at risk from off-road vehicle activity, transient activity, illegal clearing, urban runoff and dumping.

Fire and Fire Suppression

As identified in the *Vernal Pool Management Plan* (City of San Diego, 1996), this site has the potential to be impacted due to fire suppression. The long-term impact of fire on vernal pool plants and animals appears to be minimal (see Post Fire Evaluation of Vernal Pools [City of San Diego MSCP Monitoring Report, 2004]).

Required Management Activities

No management activities are required for SANDER. Maintenance activities are conducted by the City of San Diego Environmental Services Department.

Management Recommendations

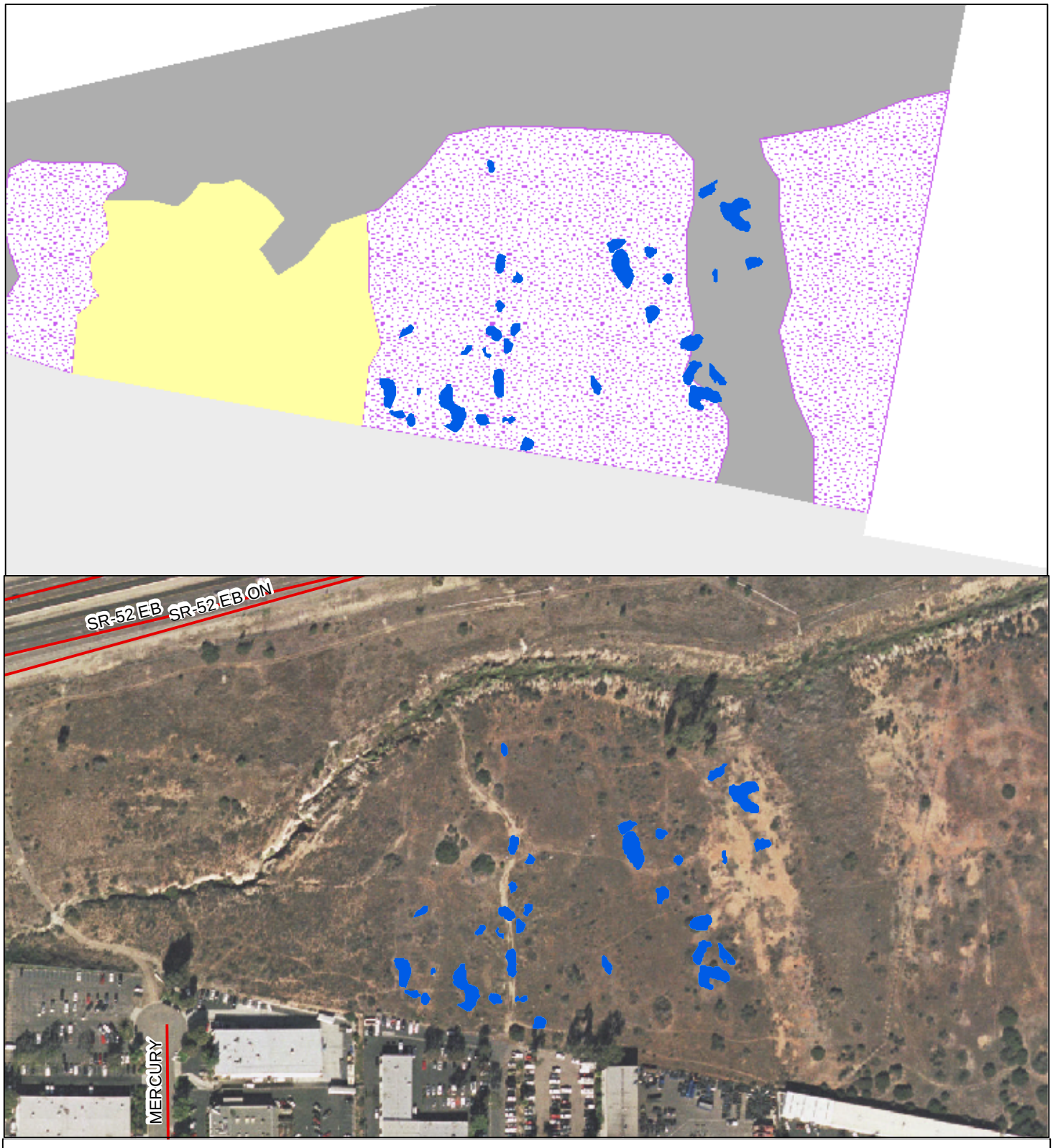
The *Vernal Pool Management Plan* (City of San Diego, 1996) made the following recommendations: Conduct inspections of physical conditions at the site, minimize disturbance, and notify the appropriate agencies during the planning stages of future development proposals. Several biological assessments and surveys have been conducted at SANDER, both by City departments and private consultants. Gates and fencing are installed around portions of the perimeter, and should be maintained as necessary.

If the site is conserved, restoration and/or enhancement of the vernal pools on-site is appropriate given the high species diversity recorded. Restoration and/or enhancement actions should be focused on creating stable populations of *E. aristulatum*, *P. abramsii*, *O. californica* and *B. sandiegonensis*, in accordance with the U.S. Fish and Wildlife Service Recovery Plan.

Restoration and reintroduction efforts shall utilize seeds from within the smallest possible geographic range, in the following order, as necessary: complex, series, geographic region (i.e. Otay Mesa).

Additional fencing should be provided as funding becomes available. A qualified biologist shall assess the site for non-native, invasive species, and shall recommend and implement a removal plan, if necessary. Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary; however, herbicides should not be used in or adjacent to vernal pools.

Figure 28



SANDER (U 15)

0.05
Miles
Kilometers
0.1

- Roads
- MHPA
- Conserved Lands
- Vernal Pools at Site
- Adjacent Vernal Pools
- Coastal Sage Scrub
- Chaparral
- Disturbed Land
- Urban/Developed
- No Data

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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8.1.5.e *General Dynamics (N 8)*

Site Description and Existing Conditions

General Dynamics (N 8) is a vernal pool preserve and creation site located within the New Century Center development. The site is west of Ruffin Road and north of Balboa, and is accessed via an industrial complex at the corner of Overland Avenue and Tech Way. This area was restored and preserved via conservation easement as mitigation for New Century Center (LDR 96-0165; USFWS BO 1-6-98-F-32). General Dynamics is within the MHPA and the underlying land use zone is Industrial Parks. Surrounding land uses include transportation, industrial and business parks.

The General Dynamics site has 21 vernal pools: fourteen are natural and seven were restored. The basins cover a total of 1,599 m^2 (0.395 acres) and occur in Redding gravelly loam soil. Upland vegetation includes coastal sage scrub and disturbed coastal sage scrub. *E. aristulatum*, *P. abramsii* and *B. sandiegonensis* were observed in 2003.

Impacts to 16 vernal pools covering 826 m^2 (8890.99 ft^2) were approved as part of the New Century Center project.

Prior to preservation and vernal pool restoration, some impacts had occurred to the vernal pools due to unrestricted access. However, natural basins and coastal sage scrub vegetation were still present on portions of the site. The site is currently fenced; the restoration process began in 1998.

Threats

Development

General Dynamics has been conserved as mitigation for New Century Center (LDR 96-0165).

Restoration Success

Success criteria, including vegetative cover, target species, and hydrologic regime are specified in *Final Mitigation Plan for Impacts to Areas with the Jurisdiction of U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service and California Department of Fish and Game: San Diego Spectrum* (Glen Lukos Associates, 1998). Remedial measures, approved by the wildlife agencies, will be required if restoration success criteria are not met within the specified time period.

Invasive Species

Non-native species occur in limited numbers, including non-native grasses, *Nicotania glauca*, and *Eucalyptus* spp. Removal of *Lythrum hyssopifolium* and *Rumex crispex* above certain thresholds was specified in the mitigation plan.

Edge Effects

The restoration site was designed to minimize litter, artificial night-lighting and non-native invasive species; however, the close proximity to development may result in impacts from these and other edge effects. Litter removal, fencing, and signage are included in the maintenance requirements of the restoration plan.

Trespass
Fencing and signage were installed to minimize trespass. Off-road vehicles are not a threat in this area; however, potential remains for trespass from employees at nearby businesses and transients.

Fire/Fire Suppression
This is unlikely to be impacted by fire or fire suppression due to the developed nature of the surrounding area.

Required Management Activities

Pursuant to Biological Opinion 1-6-98-F-32, issued through a Section 7 consultation for a U.S. Army Corps of Engineers 404 permit, mitigation and management activities are required as conditions of incidental take of San Diego mesa mint (*Pogogyne abramsii*) and San Diego fairy shrimp (*Branchinecta sandiegonensis*) resulting from the New Century Center project (LDR 96-0165).

The *Final Mitigation Plan* (Glen Lukos Associates, 1998) was accepted by the permitting agencies as mitigation for vernal pool impacts. Implementation of the *Plan* includes a five-year monitoring and maintenance program, including change in land use designation, relocation of the extension of Electronics Way, debris removal, fence installation, hand-reshaping of vernal pool basins, and the preservation (via conservation easement) and enhancement of 0.4 acres of vernal pool area, including translocation of soil and cysts from impacted vernal pools. Funding for the mitigation plan is the responsibility of the developer.

As part of the mitigation plan, the site has been fenced with permanent, 6-foot high chain link.

Management Recommendations

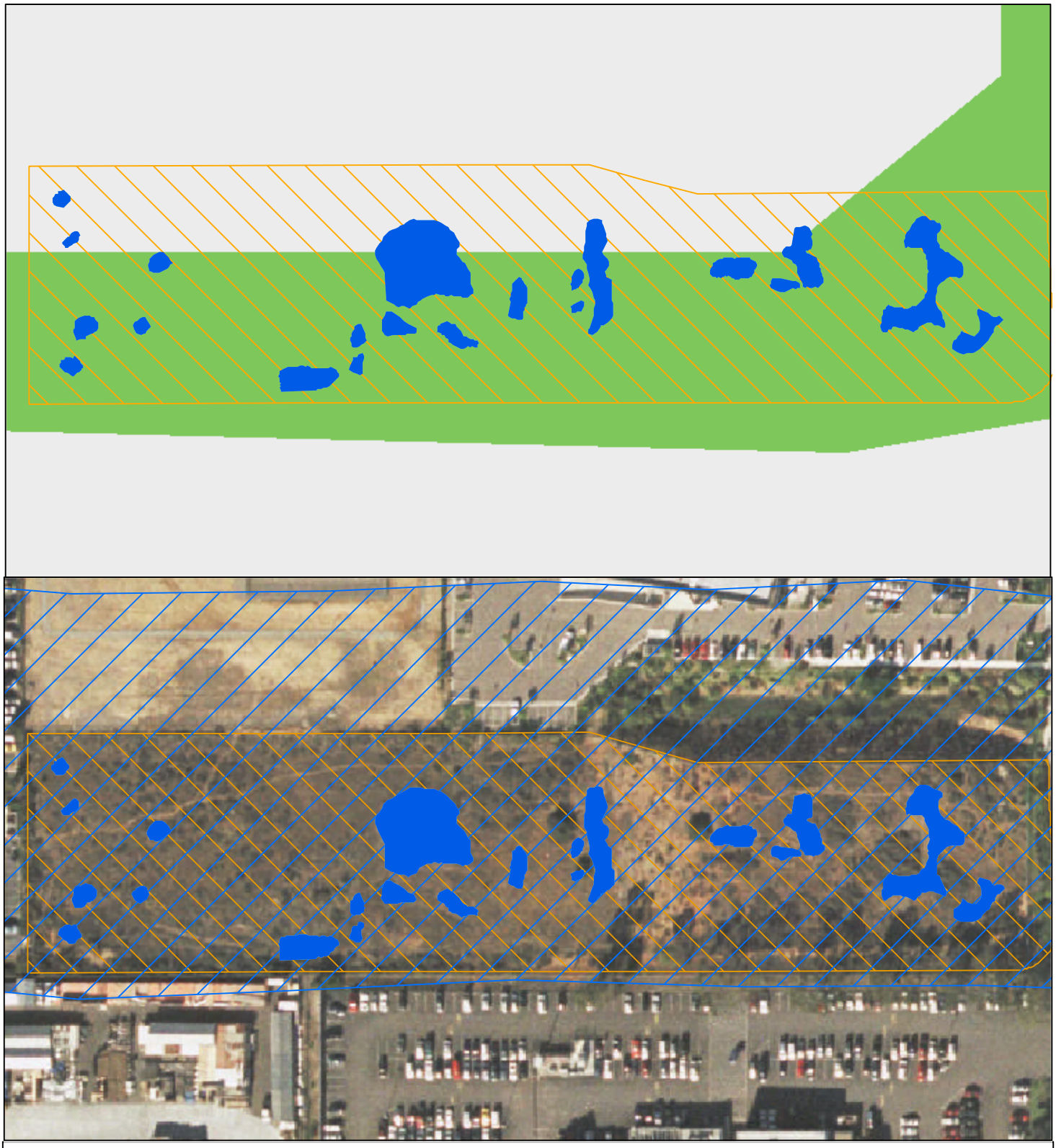
Fence repair will be required as necessary in perpetuity. Semi-annual maintenance patrols should occur to determine the need for fence repair and/or signage replacement, as well as litter and invasive species assessment.

If invasive species control measures are required, weeding immediately adjacent to vernal pools and in the upland area should be done by hand, where possible. In some cases, mechanical removal may be necessary, however, herbicides should not be used in or adjacent to vernal pools.

In accordance with the *Plan*, it is recommended that the land use zone for the preserve be changed from Industrial Parks to Open Space.

Land managers should encourage research opportunities, especially relating to the long-term success of restored vernal pools and isolated preserves.

Figure 29



General Dynamics (N 8)

Roads
MHPA
Conserved Lands
Vernal Pools at Site
Adjacent Vernal Pools
Grassland
Urban/Developed

0.02
Miles
Kilometers
0.04

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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8.1.5.f *Montgomery Field (N 1-6)*

Site Description and Existing Conditions

This vernal pool site (N 1-6) is located on the grounds of the Montgomery Field Airport—544 acres located north of Aero Drive in Kearny Mesa. The site is owned and managed by the City of San Diego Airports Division and is partially within the MHPA. Montgomery Field is zoned for airports, and adjacent uses include roads and office buildings. Expanded development has been proposed and reviewed (e.g. Montgomery Field Master Plan Amendment [PTS 19212]), but the projects appear to be stalled at this time. A number of land use and conservation documents apply to this site: U.S. Fish and Wildlife Service Biological Opinion (1-6-94-F-32), *Montgomery Field Final Conceptual Mitigation Plan* (P&D Technologies 1994), *Vernal Pool Management Plan* (City of San Diego 1996), Mitigated Negative Declaration for the Champions Gold Range and Teaching Center (DEP #93-0448), Montgomery Field Runway Extension Project EIR (DEP #93-0423) and a master plan approved in 1980 (DEP #80-09-34).

In 2003, 276 vernal pools were mapped at Montgomery Field (6.425 acres [2.7 ha] total basin area) making this one of the largest natural vernal pool sites in the City. The vernal pool basins are underlain by Redding gravelly loam and Mima topography is apparent throughout the site. Upland vegetation is characterized by non-native grasslands and disturbed coastal sage scrub, and *P. abramsii* and *B. sandiegonensis* were both observed.

This site was identified as necessary to stabilize the populations of *P. abramsii, N. fossalis,* and *B. sandiegonensis* by the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS, 1998).

Threats

Development

Additional development may be proposed at Montgomery; for example, the Montgomery Field Master Plan Amendment under review in 2004 included an MHPA Boundary Line Adjustment. In addition, two heliports are being constructed in 2006. A portion of the site is protected from development *de facto* through airport navigational easements, which exclude structures, etc.

Maintenance Activities

The *Vernal Pool Management Plan* (City of San Diego, 1996) notes that impacts may occur from on-going maintenance operations such as mowing, weed abatement, pavement repair and special event parking.

Invasive Species

The site has been colonized by non-native plant species, including a high number of grasses. However, these species do not appear to have successfully colonized the vernal pool basins.

Trespass

Trespass is limited due to perimeter fencing and the high-security nature of airport operations.

Edge Effects

Edge effects such as litter and isolation may result in negative impacts. Litter is minimized through fencing, although some impacts continue to occur. The Serra Mesa Library site is located across Aero Drive from Montgomery Field, but does not support similar, sensitive species. However, the area and number of basins are expected to allow Montgomery Field to maintain or approach normal ecosystem function, even while located 0.45 km from site(s) with populations of sensitive species.

Fire Suppression and Emergency Procedures

This site has the potential to be impacted due to fire suppression and/or emergency procedures. The long-term impact of fire on vernal pool plants and animals appears to be minimal (see *Post Fire Evaluation of Vernal Pools* [City of San Diego MSCP Monitoring Report, 2004]). However, the airport, airplanes, and associated fuel and structures are a high priority during fire suppression and vernal pools may be impacted in the course of these activities. In addition, emergencies such as plane crashes and the associated life- and property-saving procedures may damage natural resources.

Current Management Activities

The site is currently managed for the use and safety of the Montgomery Field Airport, and includes fencing and patrols to minimize access. Herbicides are not used at Montgomery Field and a Storm Water Runoff Protection Plan is implemented by the Airports Division (City of San Diego, 1996).

In addition, U.S. Fish and Wildlife Service Biological Opinion 1-6-94-F-32 and the *Montgomery Field Final Conceptual Mitigation Plan* (P&D Technologies, 1994) include specific management requirements.

Management Recommendations

The *Vernal Pool Management Plan* (City of San Diego, 1996) recommended the following actions for Montgomery Field: Quarterly inspections of physical conditions, annual assessments of biological resources, restoration of disturbed areas, minimization of impacts from on-going maintenance activities, evaluation of the site for potential preservation and restoration opportunities, and notification of applicable agencies in the planning stages of future development proposals.

Existing management actions, including fencing and patrols, should be continued for the safety of airport operations and benefit to vernal pools. Field training sessions should be made available to airport personnel interested in natural resource management.

Assessments of biological resources should be conducted as needed; for example, following major disturbance to the site due to emergency response procedures, fire, etc.

If development is proposed, additional surveys shall be conducted to determine the presence or absence of vernal pools in the north-western portion of the site along Kearny Villa Road.

If an on-site vernal pool preserve is required as mitigation for future project(s), the area shall be within or adjacent to the MHPA and of sufficient size and shape to protect both vernal pool basins and all associated watersheds. The applicant shall coordinate with the Park and Recreation Open Space Division to initiate the process to dedicate the preserve as City open space prior to project approval.

If impacts to vernal pools are approved, the mitigation shall include vernal pool and watershed restoration as part of the preservation of on-site resources. In order to ensure long-term success, the mitigation shall include invasive species removal, fencing and signage, litter removal, monitoring and a fire and emergency management plan. It is recommended that an endowment be set aside for the management of all mitigation sites in perpetuity.

Permit access to the site for research opportunities, if consistent with use and safety procedures at Montgomery Field Airport.

Figure 30

Montgomery Field (N 1-6)

Roads
MHPA
Conserved Lands
Vernal Pools at Site
Adjacent Vernal Pools
Grassland
Disturbed Land
Urban/Developed

0.2
Miles
Kilometers
0.4

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.